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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,237	12/06/2001	Lawrence Weir	EXT-070C1	1532

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EXAMINER

SISSON, BRADLEY L

ART UNIT	PAPER NUMBER
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1634

DATE MAILED: 06/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/021,237

Applicant(s)

WEIR ET AL.

Examiner

Bradley L. Sisson

Art Unit

1634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,7-11,18-20,23,24,26,28,29,32,36 and 39 is/are pending in the application.
- 4a) Of the above claim(s) 18-20,23,24,26,28 and 29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,7-11,32,36 and 39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1634

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 13February 2004 has been entered.

Priority

2. Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged. However, the provisional application upon which priority is claimed fails to provide adequate support under 35 U.S.C. 112 for claims 1, 7-11, 32, 36, and 39 of this application.

Specification

3. The specification is objected to as documents have been improperly incorporated by reference. In particular, the specification states that the various documents "are hereby incorporated by reference in their entirety." Such omnibus language fails to specify what specific information applicant seeks to incorporate by reference and similarly fails to teach with detailed particularity just where that specific information is to be found in each of the cited documents. As set forth in *Advanced Display Systems Inc. v. Kent State University* (Fed. Cir. 2000) 54 USPQ2d at 1679:

Incorporation by reference provides a method for integrating material from various documents into a host document--a patent or printed publication in an anticipation

Art Unit: 1634

determination--by citing such material in a manner that makes it clear that the material is effectively part of the host document as if it were explicitly contained therein. *See General Elec. Co. v. Brenner*, 407 F.2d 1258, 1261-62, 159 USPQ 335, 337 (D.C. Cir. 1968); *In re Lund*, 376 F.2d 982, 989, 153 USPQ 625, 631 (CCPA 1967). **To incorporate material by reference, the host document must identify with detailed particularity what specific material it incorporates and clearly indicate where that material is found in the various documents.** *See In re Seversky*, 474 F.2d 671, 674, 177 USPQ 144, 146 (CCPA 1973) (providing that incorporation by reference requires a statement "clearly identifying the subject matter which is incorporated and where it is to be found"); *In re Saunders*, 444 F.2d 599, 602-02, 170 USPQ 213, 216-17 (CPA 1971) (reasoning that a rejection or anticipation is appropriate only if one reference "expressly incorporates a particular part" of another reference); *National Latex Prods. Co. v. Sun Rubber Co.*, 274 F.2d 224, 230, 123 USPQ 279, 283 (6th Cir. 1959) (requiring a specific reference to material in an earlier application in order to have that material considered a part of a later application); *cf. Lund*, 376 F.2d at 989, 13 USPQ at 631 (holding that **a one sentence reference to an abandoned application is not sufficient to incorporate from the abandoned application into a new application**). (Emphasis added.)

Accordingly, the cited documents are not considered to have been properly incorporated by reference and as such, have not been considered with any effect towards their fulfilling, either in part or in whole, the enablement, written description, or best mode requirements of 35 USC 112, first paragraph.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1, 7-11 32, 36, and 39 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the

Art Unit: 1634

claimed invention. Attention is directed to the decision in *University of Rochester v. G.D. Searle & Co.* 68 USPQ2D 1424 (Fed. Cir. 2004) at 1428:

To satisfy the written-description requirement, the specification must describe every element of the claimed invention in sufficient detail so that one of ordinary skill in the art would recognize that the inventor possessed the claimed invention at the time of filing. *Vas-Cath*, 935 F.3d at 1563; see also *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572 [41 USPQ2d 1961] (Fed. Cir. 1997) (patent specification must describe an invention and do so in sufficient detail that one skilled in the art can clearly conclude that “the inventor invented the claimed invention”); *In re Gosteli*, 872 F.2d 1008, 1012 [10 USPQ2d 1614] (Fed. Cir. 1989) (“the description must clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed”). Thus, an applicant complies with the written-description requirement “by describing the invention, with all its claimed limitations, not that which makes it obvious,” and by using “such descriptive means as words, structures, figures, diagrams, formulas, etc., that set forth the claimed invention.” *Lockwood*, 107 F.3d at 1572.

6. For convenience, claims 1 and 32, the only independent claims under consideration, are reproduced below.

1. (Currently amended) A device for purifying a target nucleic acid molecule from a test sample, the device comprising ~~at least one~~ a plurality of purification units, ~~the each~~ purification unit comprising:

- (a) a first region comprising a receptacle for receiving the test sample; and
- (b) a second region comprising an electrophoretic medium comprising at least one immobilized capture probe selected to hybridize to the target nucleic acid, wherein the capture probe is copolymerized to the electrophoretic medium; and
- (c) a third region comprising a collection chamber for receiving a molecule from the test sample from the second region, the second region comprising a first area interfaceable with the first region opposite from a second area of the second region interfaceable with the third region.

Art Unit: 1634

32. (Currently amended) A kit for preparing a target nucleic acid in a test sample for use in nucleic acid sequencing applications, the kit comprising a device for purifying a target nucleic acid from a test sample, the device comprising at least one a plurality of purification units, the each purification unit comprising:

- (a) a first region comprising a receptacle for receiving the test sample; and
- (b) a second region comprising an electrophoretic medium comprising at least one immobilized capture probe selected to hybridize to the preselected target nucleic acid, wherein the capture probe is copolymerized to the electrophoretic medium; and
- (c) a third region comprising a collection chamber for receiving a molecule from the test sample from the second region, the second region comprising a first area interfaceable with the first region opposite from a second area of the second region interfaceable with the third region.

7. For purposes of examination the claimed device has been interpreted as not requiring any means for applying any electromotive force yet will result in purification of any target nucleic acid in any test sample where said purification is achieved by passage of the target nucleic acid into the electrophoretic medium.

8. Said device has been interpreted as having virtually any volume and dimension.

9. Said device has been interpreted as encompassing an embodiment where the first, second and third regions are all part of the same chamber, but can be separated from one another by the presence of the electrophoretic medium. Similarly, the first and second area of the second region have been interpreted as being divided only by an imaginary line and that the two areas can be of virtually any size and dimension.

10. Said device has been interpreted as comprising virtually any nucleic acid sequence that is to serve as a probe. Said probe can be to virtually any target sequence, including nucleic acids found in any life form, including sequences that are as yet unknown. In accordance with claim 11, and by extension claim 1 from which it depends, the device has been interpreted as

Art Unit: 1634

encompassing an infinite number of different probes and that the probes can be of virtually length, including full length sequences of any target sequence, which include but are not limited to genes.

11. A review of the disclosure finds the following examples:

- Example 1, "Purification of a Single DNA Product Complementary to M13mp18 Sequence," pages 23-27;
- Example 2, "Simultaneous Separation of Multiple DNA Sequence Products," pages 27-29;
- Example 3, "Elution of Target from Capture Probe using a Temperature Gradient," pages 29-30; and
- Example 4, "Temperature and Capture Probe Size Dependence of Sequence Elution," page 30.

12. Page 15, lines 9-11, states:

Nucleic acids useful for the probes of the invention include nucleic acids obtained by methods known in the art. These nucleic acids include substantially pure nucleic acids, nucleic acids produced by chemical synthesis and by combinations of biological and chemical methods, and recombinant nucleic acids.

A review of the disclosure, including the above-noted examples, finds but three M13mp18-derived oligonucleotides having been provided, and then they are synthesized with ACRYDITE at the 5' terminus. Clearly, the specification does not reasonably suggest that applicant was in possession of the immense genus of probes encompassed by the claimed device. Further, page 24 of the specification discloses the device comprising a 200- μ l-pipette tip that comprised Hybrigel. The specification teaches that an upper limit for the "plurality of purification units" was but "8 or 12 at a time."

Art Unit: 1634

13. While it may be within the skill of those in the relevant art to find and make probes, the claims currently before the Office are not drawn to a method of making probes or to a method of making the claimed device. Rather, the claims are to the device *per se*, and with the device are the probes. Accordingly, the specification must provide an adequate written description of the full scope of the claimed device and all of its elements so to satisfy the written description requirement of 35 USC 112, first paragraph. While the specification does make reference to various patent and non-patent publications, and goes so far as to assert that these documents have been “incorporated by reference in their entirety,” such documents have been improperly incorporated by reference (*supra*) and as such applicant cannot rely upon these documents for satisfaction of the written description, enablement or best mode requirements of 35 USC 112, first paragraph.

14. The invention also relates to the application of hybridization reaction conditions so to effect separation/purification of the target nucleic acid sequences. As set forth in Carrico, (US Patent 5,200,313) the extent and specificity of hybridization is affected by the following principal conditions:

1. The purity of the nucleic acid preparation.
2. Base compositions of the probe - G-C base pairs will exhibit greater thermal stability than A-T or A-U base pairs. Thus, hybridizations involving higher G-C content will be stable at higher temperatures.
3. Length of homologous base sequences- Any short sequence of bases (e.g., less than 6 bases), has a high degree of probability of being present in many nucleic acids. Thus, little or no

Art Unit: 1634

specificity can be attained in hybridizations involving such short sequences. From a practical standpoint, a homologous probe sequence will often be between 300 and 1000 nucleotides.

4. Ionic strength- The rate of reannealing increases as the ionic strength of the incubation solution increases. Thermal stability of hybrids also increases.

5. Incubation temperature- Optimal reannealing occurs at a temperature about 25 - 30 °C below the melting temperature for a given duplex. Incubation at temperatures significantly below the optimum allows less related base sequences to hybridize.

6. Nucleic acid concentration and incubation time- Normally, to drive the reaction towards hybridization, one of the hybridizable sample nucleic acid or probe nucleic acid will be present in excess, usually 100 fold excess or greater.

7. Denaturing reagents- The presence of hydrogen bond-disrupting agents, such as formaldehyde and urea, increases the stringency of hybridization.

8. Incubation- The longer the incubation time, the more complete will be the hybridization.

9. Volume exclusion agents- The presence of these agents, as exemplified by dextran and dextran sulfate, are thought to increase the effective concentrations of the hybridizing elements thereby increasing the rate of resulting hybridizations.

Further, subjecting the resultant hybridization product to repeated washes or rinses in heated solutions will remove non-hybridized probe. The use of solutions of decreasing ionic strength, and increasing temperature, e.g., 0.1X SSC for 30 minutes at 65 °C, will, with increasing effectiveness, remove non-fully complementary hybridization products.

Art Unit: 1634

15. The failure of the specification to adequately address these aspects raises a reasonable question as to applicant being in possession of a functional device that permits the breadth of purification.

16. Similarly, the claimed device and related kit encompass probes/primers for the detection of any human disease, including all types of cancers. The specification fails to provide an adequate written description of primers and probes that would permit the detection of any and all types of human diseases, including all types of cancers.

17. It appears that applicant is attempting to satisfy the written description requirement of 35 USC 112, first paragraph, through obviousness. Obviousness, however, cannot be relied upon for satisfaction of the written description requirement. In support of this position, attention is directed to the decision in *University of California v. Eli Lilly and Co.* (Fed. Cir. 1997) 43 USPQ2d at 1405, citing *Lockwood v. American Airlines Inc.* (Fed. Cir. 1997) 41 USPQ2d at 1966:

Recently, we held that a description which renders obvious a claimed invention is not sufficient to satisfy the written description requirement of that invention.

18. For the above reasons, and in the absence of convincing evidence to the contrary, the specification has not been found to set forth an adequate written description of the claimed device and related kit such that it reasonably suggests that applicant was in possession of same at the time of filing.

19. Claims 1, 7-11, 32, 36, and 39 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which

Art Unit: 1634

was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. As set forth in *Enzo Biochem Inc., v. Calgene, Inc.* (CAFC, 1999) 52 USPQ2d at 1135, bridging to 1136:

To be enabling, the specification of a patent must teach those skilled in the art how to make and use the full scope of the claimed invention without 'undue experimentation.' " *Genentech, Inc. v. Novo Nordisk, A/S*, 108 F.3d 1361, 1365, 42 USPQ2d 1001, 1004 (Fed. Cir. 1997) (quoting *In re Wright*, 999 F.2d 1557, 1561, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993)). Whether claims are sufficiently enabled by a disclosure in a specification is determined as of the date that the patent application was first filed, see *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384, 231 USPQ 81, 94 (Fed. Cir. 1986).... We have held that a patent specification complies with the statute even if a "reasonable" amount of routine experimentation is required in order to practice a claimed invention, but that such experimentation must not be "undue." See, e.g., *Wands*, 858 F.2d at 736-37, 8 USPQ2d at 1404 ("Enablement is not precluded by the necessity for some experimentation However, experimentation needed to practice the invention must not be undue experimentation. The key word is 'undue,' not 'experimentation.' ") (footnotes, citations, and internal quotation marks omitted). In *In re Wands*, we set forth a number of factors which a court may consider in determining whether a disclosure would require undue experimentation. These factors were set forth as follows: (1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims. *Id.* at 737, 8 USPQ2d at 1404. We have also noted that all of the factors need not be reviewed when determining whether a disclosure is enabling. See *Amgen, Inc. v. Chugai Pharm. Co., Ltd.*, 927 F.2d 1200, 1213, 18 USPQ2d 1016, 1027 (Fed. Cir. 1991) (noting that the *Wands* factors "are illustrative, not mandatory. What is relevant depends on the facts.").

20. As presented above, the specification does not reasonably suggest that applicant was in possession of the invention at the time of filing. Accordingly, one cannot enable the use of that which they do yet possess.

21. The state of the art has advanced to where specific difficulties are known to exist. In support of this position, attention is directed to the following.

Art Unit: 1634

22. US Patent Application Publication 2003/0133846 teaches:

Whereas electrophoretic separation of macromolecules is an established technique, the elution of macromolecules from the gel has hitherto represented a difficult and generally non-reproducible procedure.

23. US Patent Application Publication 2002/0090641 teaches:

[0009] According to conventional separating techniques using electrophoresis, the mobility of each of polynucleotides is relative to each other and fluctuates with changes of electrophoresis conditions, and thus identification of an extracted sample solution component is required. In addition, exact separation and purification of a trace quantity of a target polynucleotide is difficult because diffusion in the electrophoresis step can invite contamination of polynucleotides with each other. (Emphasis added)

The instant disclosure, however, is essentially silent as to how these art-recognized problems are to be addressed and overcome. As a result of not enabling the claimed invention, applicant has unfairly shifted the burden of enablement from self to the public. The situation at hand is analogous to that in *Genentech v. Novo Nordisk A/S* 42 USPQ2d 1001. As set forth in the decision of the Court:

“ ‘[T]o be enabling, the specification of a patent must teach those skilled in the art how to make and use the full scope of the claimed invention without undue experimentation.’ *In re Wright* 999 F.2d 1557, 1561, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993); *see also Amgen Inc. v. Chugai Pharms. Co.*, 927 F. 2d 1200, 1212, 18 USPQ2d 1016, 1026 (Fed Cir. 1991); *In re Fisher*, 427 F. 2d 833, 166 USPQ 18, 24 (CCPA 1970) (‘[T]he scope of the claims must bear a reasonable correlation to the scope of enablement provided by the specification to persons of ordinary skill in the art.’).

“Patent protection is granted in return for an enabling disclosure of an invention, not for vague intimations of general ideas that may or may not be workable. *See Brenner v. Manson*, 383 U.S. 519, 536, 148 USPQ 689, 696 (1966) (starting, in context of the utility requirement, that ‘a patent is not a hunting license. It is not a reward for the search, but compensation for its successful conclusion.’) Tossing out the mere germ of an idea does not constitute enabling disclosure. While every aspect of a generic claim certainly need not have been carried out by an inventor,

Art Unit: 1634

or exemplified in the specification, reasonable detail must be provided in order to enable members of the public to understand and carry out the invention. "It is true . . . that a specification need not disclose what is well known in the art. *See, e.g., Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1385, 231 USPQ 81, 94 (Fed. Cir. 1986). However, that general, oft-repeated statement is merely a rule of supplementation, not a substitute for a basic enabling disclosure. It means that the omission of minor details does not cause a specification to fail to meet the enablement requirement. However, when there is no disclosure of any specific starting material or any of the conditions under which a process can be carried out, undue experimentation is required; there is a failure to meet the enablement requirement that cannot be rectified by asserting that all the disclosure related to the process is within the skill of the art. It is the specification, not the knowledge of one skill in the art, that must supply the novel aspects of an invention in order to constitute adequate enablement. This specification provides only a starting point, a direction for further research. (Emphasis added)

While the specification has been found to provide some guidance in the four examples found at pages 23-30, such guidance fails to enable the public to overcome art-recognized difficulties and thereby fully enable the claimed invention.

24. In view of the breadth of scope claimed, the limited guidance provided, the unpredictable nature of the art to which the claimed invention is directed, and in the absence of convincing evidence to the contrary, the claims are deemed to be non-enabled by the disclosure.

25. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

26. Claims 1, 7-11, and 32-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

27. Claims 1, 7-11, 32-34, and 36-38 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the

Art Unit: 1634

elements. See MPEP § 2172.01. The omitted elements are: means to effect separation/purification of the nucleic acids of interest, e.g., electrophoretic means.

28. Claims 1, 7-11, 32-34, and 36-38 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: that which exists between the receptacle, the electrophoretic medium, a collection chamber, the purification unit(s), exit orifice, and the various probes.

Response to argument

29. At page 9, bridging to page 10 of the response, applicant asserts that the amended claims do not omit an essential element and as such the rejection should be withdrawn.

30. The above argument has been fully considered and has not been found persuasive for the claim is drawn to “a device for purifying a target nucleic acid,” and as such the device must recite those elements that are required to perform this function. As presently worded, the claims lack this essential element. Therefore, and in the absence of convincing evidence to the contrary, the rejection is maintained.

Claim Rejections - 35 USC § 102

31. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(f) he did not himself invent the subject matter sought to be patented.

32. Claims 1, 7-11, 32, 36, and 39 are rejected under 35 U.S.C. 102(a) as being anticipated by Weir et al.

33. Weir et al., disclose a microtiter-based device used in the purification of nucleic acids in a test sample. As seen in the abstract, the device comprises means for accepting a sample, probes copolymerized in an electrophoretic medium, and means for a sample collection area as Weir et al., teach explicitly of being able to recover small volumes of the recovered (purified and concentrated) target nucleic acid.

34. The microtiter plates used by Weir et al., are considered in the absence of convincing evidence to the contrary to comprise the very features or elements of the microtiter plate used by applicant (co-authors).

35. Claims 1, 7-11, 32, 36, and 39 are rejected under 35 U.S.C. 102(f) because the applicant did not invent the claimed subject matter. The publication of Weir et al., discloses the claimed invention and has been found to teach that it was developed as a result of the actions of four individuals, of which three are co-inventors. The instant application names other individuals as inventors, yet are not found on the article, and the article names one Rahul K. Dhanda as a co-author which is not recited as a co-inventor. Consequently, the publication of Weir et al., constitutes the work of another.

Conclusion

36. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley L. Sisson whose telephone number is (571) 272-0751.

The examiner can normally be reached on 6:30 a.m. to 5 p.m., Monday through Thursday.

37. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on (571) 272-0782. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

38. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Bradley L. Sisson
Primary Examiner
Art Unit 1634